

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Carter et al.**

Serial No. **10/697,895**

Filed: **October 30, 2003**

For: **Methods, Apparatus and
Computer Programs for Visualization
and Management of Data
Organisation Within a Data
Processing System**

§
§
§
§
§
§
§

Group Art Unit: **2163**

Examiner: **Ho, Binh Van**

**Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

35525
PATENT TRADEMARK OFFICE
CUSTOMER NUMBER

APPEAL BRIEF (37 C.F.R. 41.37)

This brief is in furtherance of the Notice of Appeal, filed in this case on March 8, 2007.

A fee of \$500.00 is required for filing an Appeal Brief. Please charge this fee to Yee & Associates, P.C. Deposit Account No. 50-3157. No additional fees are believed to be necessary. If, however, any additional fees are required, I authorize the Commissioner to charge these fees which may be required to Yee & Associates, P.C. Deposit Account No. 50-3157.

A one month extension of time is believed to be necessary. I authorize the Commissioner to charge the one month extension fee of \$120.00 to Yee & Associates, P.C. Deposit Account No. 50-3157. No additional extension of time is believed to be necessary. If, however, an additional extension of time is required, the extension is requested, and I authorize the Commissioner to charge any fees for this extension to Yee & Associates, P.C. Deposit Account No. 50-3157.

REAL PARTY IN INTEREST

The real party in interest in this appeal is the following party: International Business Machines Corporation of Armonk, New York.

RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such appeals or interferences.

STATUS OF CLAIMS

A. TOTAL NUMBER OF CLAIMS IN APPLICATION

Claims in the application are: 1-26.

B. STATUS OF ALL THE CLAIMS IN APPLICATION

1. Claims canceled: None.
2. Claims withdrawn from consideration but not canceled: None.
3. Claims pending: 1-26.
4. Claims allowed: None.
5. Claims rejected: 1-26.
6. Claims objected to: None.

C. CLAIMS ON APPEAL

The claims on appeal are: 1-26.

STATUS OF AMENDMENTS

An Amendment after Final Office Action was not filed. Therefore, the claims on appeal herein are as presented in the Response to Office Action filed September 13, 2006.

SUMMARY OF CLAIMED SUBJECT MATTER

A. CLAIM 1 – INDEPENDENT

The subject matter of claim 1 is directed to a method for managing data organisation for computer programs. A reference taxonomy that comprises information defining a data organization is generated and stored (**210, 220, 230 Figure 7**; Specification, page 15, lines 7-19). Storage associated with a computer program is accessed to obtain an application taxonomy that comprises information defining the organisation of stored data items of the program (**240, 250, Figure 7**; Specification, page 17, lines 25-29). The reference taxonomy is compared with the application taxonomy to identify matching and non-matching features of the compared taxonomies (**290, Figure 7**; Specification, page 18, line 19-page 19, line 16). In response to a selection of a preferred taxonomy based on a result of the comparison, the preferred taxonomy is stored as a replacement of at least one of the reference taxonomy and the application taxonomy (**310, 320, Figure 7**; Specification, page 20, line 20-page 21, line 7).

B. CLAIM 16 - INDEPENDENT

The subject matter of claim 16 is directed to a taxonomy manager for managing data organisation for computer programs. The taxonomy manager (**60, Figures 1, 2**; Specification, page 12, lines 21-26) includes means for generating and storing a reference taxonomy, the reference taxonomy comprising information defining a data organisation (**60, 100, 110, Figure 2**; Specification, page 12, line 21-page 13, line 9; also see page 17, line 13-page 19, line 18); and at least one adapter program for accessing storage associated with a respective computer program to obtain an application taxonomy, the application taxonomy comprising information defining the organisation of stored data items of the program (**120, Figure 2**; Specification, page 13, line 11-page 15, line 5). The taxonomy manager further includes means for comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies (**110, Figure 2**; Specification, page 19, lines 15-18); and means, responsive to a selection of a preferred taxonomy based on a result of the comparison, for storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and

the application taxonomy (taxonomy engine) (110, **Figure 2**; Specification, page 24, lines 28-33).

C. CLAIM 24 - INDEPENDENT

The subject matter of claim 24 is directed to a computer program for managing data organization. The computer program includes program code for generating and storing a reference taxonomy, the reference taxonomy comprising information defining a data organisation (210, 220, 230 **Figure 7**; Specification, page 15, lines 7-19). The computer program also includes program code for accessing storage associated with a first computer program to obtain an application taxonomy, the application taxonomy comprising information defining the organisation of stored data items of the first program (240, 250, **Figure 7**; Specification, page 17, lines 25-29). The computer program also includes program code for comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies (290, **Figure 7**; Specification, page 18, line 19-page 19, line 16); and program code, responsive to a selection of a preferred taxonomy based on a result of the comparison, for storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy (310, 320, **Figure 7**; Specification, page 20, line 20-page 21, line 7).

D. CLAIM 26 - INDEPENDENT

The subject matter of claim 26 is directed to a data processing apparatus. The data processing apparatus includes a data processor, data storage, one or more computer programs for controlling the operation of the data processor to perform operations on data items stored in the data storage (10, **Figures 1, 2**; Specification, page 10, lines 7-11), and a taxonomy manager for managing organisation of stored data in association with the one or more computer programs (60, **Figures 1, 2**; Specification, page 12, lines 21-26). The taxonomy manager includes means for generating and storing a reference taxonomy, the reference taxonomy comprising information defining a data organization (60, 100, 110, **Figure 2**; Specification, page 12, lines 21-page 13, line 9; also see page 17, line 13-page 19, line 18). The taxonomy manager also includes an adapter for accessing storage associated with a computer program to obtain an application taxonomy, the application taxonomy comprising information defining the organisation of stored

data items of the program (**120, Figure 2**; Specification, page 13, line 11-page 15, line 5). The taxonomy manager also includes means for comparing the reference taxonomy with the application taxonomy to identity matching and non-matching features of the compared taxonomies (**110, Figure 2**; Specification, page 19, lines 15-18); and means, responsive to a selection of a preferred taxonomy based on a result of the comparison, for storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy (**110, Figure 2**; Specification, page 24, lines 28-33).

E. CLAIM 5 – DEPENDENT

The subject matter of claim 5, which depends from claim 1 through claim 3, recites that the generated reference taxonomy includes nodes representing data structures and information representing relationships between data structures (see, for example, **Figure 3**; Specification, page 22, line 26- page 23, line 30), and that the step of generating a modified application taxonomy includes repositioning data structures within the compared application taxonomy, such that the relationships between the data structures of the modified application taxonomy and nodes of the reference taxonomy are more consistent than the relationships between data structures of the compared application taxonomy and nodes of the reference taxonomy (see, for example, Specification, page 26, line 30-page 27, line 13).

F. CLAIM 9 - DEPENDENT

The subject matter of claim 9, which depends from claim 1, recites that the step of comparing includes comparing, using string matching, qualified node names for nodes of the reference taxonomy and nodes, corresponding to data structures, of the application taxonomy (see, for example, Specification, page 6, lines 14-23).

G. CLAIM 22 - DEPENDENT

The subject matter of claim 22, which depends from claim 16, recites that the taxonomy manager includes an adapter for interfacing between the means for generating a reference taxonomy and a publish/subscribe messaging manager to enable at least a part of the generated

reference taxonomy to be sent to a second taxonomy manager via the publish/subscribe messaging manager (see, for example, Specification, page 35, lines 1-23).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to review on appeal are as follows:

A. GROUND OF REJECTION 1 (Claims 1-26)

Claims 1-26 are rejected under 35 U.S.C. § 102(e) as being anticipated by Allemang, U.S. Patent Publication No. 2003/0050915.

ARGUMENT

A. GROUND OF REJECTION 1 (Claims 1-26)

Claims 1-26 are rejected under 35 U.S.C. § 102(e) as being anticipated by Allemang, U.S. Patent Publication No. 2003/0050915 (hereinafter “*Allemang*”).

A.1. Claims 1-26

In finally rejecting the claims, the Examiner states:

(Claims 1, 16, 24, and 26)

Allemang discloses in figures 1-13,16,18,20-31, a method for managing data organization for computer programs, the method including the steps of: generating and storing a reference taxonomy, the reference taxonomy comprising information defining a data organisation; accessing storage associated with a computer program to obtain an application taxonomy, the application taxonomy comprising information defining the organisation of stored data items of the program; comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies; and in response to a selection of a preferred taxonomy, storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy (Paragraph [0070]-[0072], [0075], [0076], [0078-82], [0084], [0087], [0089], [0090], [0094], [0095], [0097], [0100], [0103], [0113], [0118], [0123], [0125]-[0131], [0133], [0134], [0137], [0138], [0140], [0145], [0161], [0170], [0180], [0182]-[0235], [[0238]-[0244], [0257]-[0290], [0300], [0301], [0311], [0313], [0321]-[0322], [0329], [0366], [0339]-[0340], [0363], [0368], [0394], [001], [0404], [0406], [408], [0412], [0416]).

Final Office Action dated December 12, 2006, pages 2 and 3.

Claim 1 on appeal herein is as follows:

1. A method for managing data organisation for computer programs, the method including the steps of:

generating and storing a reference taxonomy, the reference taxonomy comprising information defining a data organisation;

accessing storage associated with a computer program to obtain an application taxonomy, the application taxonomy comprising information defining the organisation of stored data items of the program;

comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies; and

in response to a selection of a preferred taxonomy based on a result of the comparison, storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy.

A prior art reference anticipates a claimed invention under 35 U.S.C. § 102 only if every element of the claimed invention is identically shown in that single prior art reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of a claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983).

Appellants respectfully submit that *Allemang* does not identically show every element of the claimed invention arranged as they are in the claims; and, accordingly, does not anticipate the claims. With respect to claim 1, in particular, *Allemang* does not teach or in any way suggest a method for managing data organisation for computer programs that includes “in response to a selection of a preferred taxonomy based on a result of the comparison, storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy”.

The present invention is generally directed to a mechanism for managing the organization of data in a data processing system. More particularly, the present invention recognizes that a user’s computer system typically stores different types of data which may be organized in different ways. Although there may be similarities in the ways in which different data types are stored in a computer system, they are seldom identical, and this makes it difficult for a user to

organize the different data types in a manner that makes it easier for the user to navigate and manage the data.

Embodiments of the present invention are directed to mechanisms to help a user identify and understand the logical relationship between data structures stored in a computer system. According to an embodiment of the invention, this is accomplished by generating a reference taxonomy that comprises information that defines a data organization. In exemplary embodiments, a “candidate” reference taxonomy is selected to represent a user’s preference for organizing data within the user’s computer system. The candidate reference taxonomy might, for example, be created by the user from scratch, selected by the user from a plurality of application taxonomies that already exist, or it might be created by a taxonomy manager of the computer system. An application taxonomy that includes information defining the organisation of stored data items of a particular program is then accessed. The candidate reference taxonomy is compared with the application taxonomy to identify matching and non-matching features, and a preferred taxonomy is selected and stored based on a result of the comparison, as a replacement of at least one of the reference taxonomy and the application taxonomy. The preferred taxonomy, in effect, represents the user’s preference for organizing data within the user’s computer system.

As is apparent from the above description, and as is recited in claim 1, the present invention provides a preferred taxonomy that is selected and stored “as a replacement of at least one of the reference taxonomy and the application taxonomy”. Appellants respectfully submit that *Allemang* is not related to, does not disclose, and actually teaches away from a mechanism that functions to replace one taxonomy with another taxonomy, and does not anticipate claim 1 for at least this reason.

Allemang is directed to a mechanism for managing graphs such as graphs which are models of catalogs of items, such as clothing items. In *Allemang*, a constellation of factored models is created from one or more source models. The constellation of factored models includes a composite model in which common aspects of the source models are combined, and a variability model which contains the differences between the source models (see, for example, paragraph [0032] of *Allemang*). In *Allemang*, the composite model is formed by taking analogous input trees from the source models and traversing the trees to identify nodes in the

trees that are analogous at each level of the trees. Representations of the correlated nodes are then displayed to a user who identifies sets of correlated nodes that are analogous (see, for example, the Abstract in *Allemang*).

Allemang nowhere discloses or suggests “in response to a selection of a preferred taxonomy based on a result of the comparison [of a reference taxonomy and an application taxonomy], storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy” as recited in claim 1. Instead, in *Allemang*, information is always being added, not replaced. For example, paragraphs [0183] and [0184] of *Allemang*, which are among the numerous paragraphs in *Allemang* referred to by the Examiner in rejecting claim 1, are reproduced below for the convenience of the Board:

[0183] As indicated in the foregoing discussion and in **FIG. 17**, once the system has found the best overall set of matches of concepts in the current comparison set, the user must review what the system has found. The system presents the user with its best overall set of matches and sets of anomalous concepts, that is, concepts for which no matches resulted from the present recursion and earlier recursions. The user may validate a match found by the system, may override a match found by the system, and may make matches other than those specified by the system, including matches between concepts belonging to the current comparison set, matches between concepts in that set and anomalous concepts, and matches between anomalous concepts.

[0184] **FIG. 16** shows a graphical user interface **1601** for user validation and refinement. Control of the interface is by selection of elements and manipulation of buttons. At **1611**, there is a list of pairs of candidate matched concepts. One member of each pair is from the current comparison set of concepts; the other member is from the commonality model C. If the user finds that a pair is not a proper match, the user selects the pair in list **1611** and clicks on split match button **1617**. At that point, the system adds the concept from the current comparison set to the list **1607** of anomalous concepts from this level of I.sub.i (the input subtree currently being analyzed); if the concept from C has no other match at this level, it is added to the list **1608** of anomalous concepts from C. Conversely, if the user indicates that a concept in list **1607** matches a concept in list **1608** by selecting the two concepts and clicking on join concepts button **1609**, the system adds the selected pair to list of matching pairs **1611**. When the user is satisfied that list of matching pairs **1611** correctly shows all of the matching pairs from the concepts from I.sub.i and C being displayed in interface **1601**, the user clicks on accept matches button **1613**, and the matching concepts are removed from T' and incorporated into C. Anomalous concepts in list **1608** remain in C.

Paragraph [0183] above describes that a user may validate a match, override a match or make different matches, but nowhere is there a disclosure or suggestion of replacing one taxonomy with another taxonomy. Similarly, paragraph [0184] above recites “if the concept from C has no other match at this level, it is added to the list **1608** of anomalous concepts from C.” Further, the paragraph states that “if the user indicates that a concept in list **1607** matches a concept in list **1608** by selecting the two concepts and clicking on join concepts button 1609, the system adds the selected pair to list of matching pairs **1611**. This paragraph also describes that “the user clicks on accept matches button **1613**, and the matching concepts are removed from T’ and incorporated into C.”

Furthermore, in responding to Appellants’ arguments that *Allemang* failed to disclose subject matter recited in claim 1, the Examiner, on page 11, lines 1-4 of the Final Office Action dated December 12, 2006, refers specifically to paragraph [0338] of *Allemang* as disclosing “in response to a selection of a preferred taxonomy based on a result of the comparison, storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy.” Paragraph [0338] of *Allemang* is as follows:

[0338] Note that for each of the patterns above there will typically be some elicitation from the user required in order for the transformation to be posted to the composite model C (Emphasis added).

The above-reproduced paragraph [0338] in *Allemang* also does not disclose or suggest “in response to a selection of a preferred taxonomy based on a result of the comparison, storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy” as recited in claim 1. Again, the paragraph refers to forming a “composite” model, and does not disclose replacing one taxonomy with another taxonomy.

Yet further, the Abstract in *Allemang* describes that the invention disclosed therein is related to techniques for factoring one or more source graphs into a composite graph containing nodes representing analogous elements of the source graphs, and refers to nodes as being “allocated”, but, again, there is no disclosure of replacing one taxonomy with another taxonomy. Even the Title in *Allemang* “CONCEPTUAL FACTORING AND UNIFICATION OF GRAPHS

REPRESENTING SEMANTIC MODELS” mentions factoring or unifying graphs, but not replacement.

In general, Appellants respectfully submit that *Allemang* does not teach or in anyway suggest the limitation in claim 1 of “in response to a selection of a preferred taxonomy based on a result of the comparison, storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy.” *Allemang*, accordingly, does not anticipate claim 1, and claim 1 patentably distinguishes over *Allemang* in its present form.

Claims 2-15 depend from and further restrict claim 1, and are also not anticipated by *Allemang*, at least by virtue of their dependency.

Independent claims 16, 24 and 26 recite similar subject matter as claim 1, and are also not anticipated by *Allemang* for similar reasons as discussed above with respect to claim 1. Claims 17-23 depend from and further restrict claim 16; and claim 25 depends from and further restricts claim 24 and are also not anticipated by *Allemang*, at least by virtue of their dependency.

A.2. Claim 5

Claim 5 depends from claim 1 through claim 3, and is as follows:

5. A method according to claim 3, wherein the generated reference taxonomy includes nodes representing data structures and information representing relationships between data structures, and wherein the step of generating a modified application taxonomy includes repositioning data structures within the compared application taxonomy, such that the relationships between the data structures of the modified application taxonomy and nodes of the reference taxonomy are more consistent than the relationships between data structures of the compared application taxonomy and nodes of the reference taxonomy.

Appellants respectfully submit that *Allemang* does not disclose or suggest “wherein the step of generating a modified application taxonomy includes repositioning data structures within the compared application taxonomy, such that the relationships between the data structures of the modified application taxonomy and nodes of the reference taxonomy are more consistent than the relationships between data structures of the compared application taxonomy and nodes of the reference taxonomy.”

In rejecting claim 5, the Examiner refers to Figures 4, 16 and 21-23 and to paragraphs [0096], [0097], [0100]-[0103], [0182]-[0235] and [0280]-[0284] of *Allemang* as disclosing the subject matter of claim 5. The Examiner has not indicated with any specificity where the subject matter of claim 5 is disclosed in these figures and paragraphs, and Appellants have not identified any disclosure of the subject matter of claim 5 in *Allemang*. The cited paragraphs describe how matching concepts are incorporated into a model but do not describe “wherein the step of generating a modified application taxonomy includes repositioning data structures within the compared application taxonomy, such that the relationships between the data structures of the modified application taxonomy and nodes of the reference taxonomy are more consistent than the relationships between data structures of the compared application taxonomy and nodes of the reference taxonomy” as recited in claim 5.

Claim 5, accordingly, is not anticipated by and patentably distinguishes over *Allemang* in its own right as well as by virtue of its dependency.

A.3. Claim 9

Claim 9 depends from claim 1 and is as follows:

9. A method according to claim 1, wherein the step of comparing includes comparing, using string matching, qualified node names for nodes of the reference taxonomy and nodes, corresponding to data structures, of the application taxonomy.

In rejecting claim 9, the Examiner refers to the same Figures 4, 16 and 21-23 and the same paragraphs [0096], [0097], [0100]-[0103], [0182]-[0235] and [0280]-[0284] cited in rejecting claim 5. Appellants are also unable to identify any disclosure in the cited paragraphs or elsewhere in *Allemang* of “comparing, using string matching, qualified node names for nodes of the reference taxonomy and nodes, corresponding to data structures, of the application taxonomy” nor has the Examiner indicated with any specificity where this subject matter is disclosed in *Allemang*.

Claim 9, accordingly, is not anticipated by and patentably distinguishes over *Allemang* in its own right as well as by virtue of its dependency.

A.4. Claim 22

Claim 22, which depends from claim 16, is as follows:

22. A taxonomy manager according to claim 16, including an adapter for interfacing between the means for generating a reference taxonomy and a publish/subscribe messaging manager to enable at least a part of the generated reference taxonomy to be sent to a second taxonomy manager via the publish/subscribe messaging manager.

In rejecting claim 22, the Examiner refers to Figures 4-10, 16, 19 and 21-23 and to paragraphs [0096], [0097], [0100]-[0103], [[0108]-[0114], [0115], [0118], [0120], [0125]-[0130], [0182]-[0235], [0245], [0252] and [0280]-[0284]. Appellants are unable to identify any disclosure in the cited paragraphs or elsewhere in *Allemang* of “an adapter for interfacing between the means for generating a reference taxonomy and a publish/subscribe messaging manager to enable at least a part of the generated reference taxonomy to be sent to a second taxonomy manager via the publish/subscribe messaging manager” nor has the Examiner indicated with any specificity where this subject matter is disclosed in *Allemang*.

Claim 22, accordingly, is not anticipated by and patentably distinguishes over *Allemang* in its own right as well as by virtue of its dependency.

For at least all the above reasons, claims 1-26 are not anticipated by and patentably distinguish over *Allemang*, and it is respectfully requested that the Board reverse the Examiner’s Final Rejection of those claims.

/Gerald H. Glanzman/
Gerald H. Glanzman
Reg. No. 25,035
YEE & ASSOCIATES, P.C.
PO Box 802333
Dallas, TX 75380
(972) 385-8777

CLAIMS APPENDIX

The text of the claims involved in the appeal are:

1. A method for managing data organisation for computer programs, the method including the steps of:

generating and storing a reference taxonomy, the reference taxonomy comprising information defining a data organisation;

accessing storage associated with a computer program to obtain an application taxonomy, the application taxonomy comprising information defining the organisation of stored data items of the program;

comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies; and

in response to a selection of a preferred taxonomy based on a result of the comparison, storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy.

2. A method according to claim 1, wherein the step of storing a preferred taxonomy in response to a selection of the preferred taxonomy includes:

generating a modified reference taxonomy which aggregates features of the compared reference taxonomy and features of the compared application taxonomy, wherein an identified matching feature of the compared reference and application taxonomies is represented as a single node in the modified reference taxonomy.

3. A method according to claim 1, wherein the step of storing a preferred taxonomy in response to a selection of the preferred taxonomy includes:

generating a modified application taxonomy which includes features of the compared reference taxonomy.

4. A method according to claim 3, wherein the generated reference taxonomy includes nodes representing data structures and information representing relationships between data structures, and wherein the step of generating a modified application taxonomy includes generating at least one new data structure within the modified application taxonomy which new data structure corresponds to a node of the compared reference taxonomy.

5. A method according to claim 3, wherein the generated reference taxonomy includes nodes representing data structures and information representing relationships between data structures, and wherein the step of generating a modified application taxonomy includes repositioning data structures within the compared application taxonomy, such that the relationships between the data structures of the modified application taxonomy and nodes of the reference taxonomy are more consistent than the relationships between data structures of the compared application taxonomy and nodes of the reference taxonomy.

6. A method according to claim 1, wherein the step of generating a reference taxonomy includes:

accessing storage associated with a second computer program to obtain an application taxonomy for the second program.

7. A method according to claim 1, wherein a step of accessing storage to obtain an application taxonomy includes using an adapter which interfaces to the respective computer program to access information relating to the names of and relationships between stored data structures.

8. A method according to claim 1, wherein the step of generating a reference taxonomy includes:

receiving user inputs via a graphical user interface; and

interpreting user inputs to generate nodes representing data structures of a taxonomy and to generate information representing relationships between data structures.

9. A method according to claim 1, wherein the step of comparing includes comparing, using string matching, qualified node names for nodes of the reference taxonomy and nodes, corresponding to data structures, of the application taxonomy.

10. A method according to claim 1, wherein the step of comparing the reference taxonomy with the application taxonomy is repeated in response to a trigger condition.

11. A method according to claim 10 wherein the trigger condition is expiry of a predefined time period.

12. A method according to claim 1, wherein said step of generating a reference taxonomy is performed on a first data processing apparatus and is followed by a step of sending at least a part

of the reference taxonomy to a second data processing apparatus, and wherein the steps of comparing and storing a selected preferred taxonomy are performed on the second data processing apparatus.

13. A method according to claim 12, wherein the step of sending at least a part of the reference taxonomy is performed by a distributed publish/subscribe messaging system.

14. A method according to claim 1, including the steps of:
generating, via a graphical user interface (GUI), a graphical representation of the reference taxonomy including nodes representing data structures of the taxonomy; and
in response to user-interactions with the GUI, generating calls to the computer program to initiate application program functions.

15. A method according to claim 14, wherein the GUI includes a data backup function call and the method includes the step of:
in response to user-selection of the data backup function call and user-selection of a set of one or more nodes of the reference taxonomy, sending a call to the application program to backup data within the application taxonomy data structures corresponding to said set of nodes.

16. (Previously Presented) A taxonomy manager for managing data organisation for computer programs, comprising:
means for generating and storing a reference taxonomy, the reference taxonomy comprising information defining a data organisation;

at least one adapter program for accessing storage associated with a respective computer program to obtain an application taxonomy, the application taxonomy comprising information defining the organisation of stored data items of the program;

means for comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies; and

means, responsive to a selection of a preferred taxonomy based on a result of the comparison, for storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy.

17. A taxonomy manager according to claim 16, including a plurality of adapters, wherein each adapter enables accessing of storage associated with a computer program of a respective type and obtaining the application taxonomy for the computer program of the respective type.

18. A taxonomy manager according to claim 16, including a graphical user interface (GUI) for generating a graphical representation of the reference taxonomy, the graphical representation including nodes representing data structures.

19. A taxonomy manager according to claim 18, wherein the GUI is responsive to user inputs to identify selection of a preferred taxonomy.

20. A taxonomy manager according to claim 18, wherein the GUI includes function calls for initiating operations of said respective computer program.

21. A taxonomy manager according to claim 20, wherein the GUI includes a data backup function call and is responsive to user-selection of the data backup function call and user selection of a set of one or more nodes of the reference taxonomy to send a call to the respective computer program to backup data within the application taxonomy data structures corresponding to said set of nodes.

22. A taxonomy manager according to claim 16, including an adapter for interfacing between the means for generating a reference taxonomy and a publish/subscribe messaging manager to enable at least a part of the generated reference taxonomy to be sent to a second taxonomy manager via the publish/subscribe messaging manager.

23. A taxonomy manager according to claim 22, including a listener component for identifying receipt of reference taxonomy information and triggering the taxonomy manager to process such received taxonomy information.

24. A computer program for managing data organisation, comprising:

program code for generating and storing a reference taxonomy, the reference taxonomy comprising information defining a data organisation;

program code for accessing storage associated with a first computer program to obtain an application taxonomy, the application taxonomy comprising information defining the organisation of stored data items of the first program;

program code for comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies; and

program code, responsive to a selection of a preferred taxonomy based on a result of the comparison, for storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy.

25. A computer program according to claim 24, including a graphical user interface for displaying taxonomies to a user and for responding to user inputs to identify selection of a preferred taxonomy.

26. A data processing apparatus including: a data processor; data storage; one or more computer programs for controlling the operation of the data processor to perform operations on data items stored in the data storage; and a taxonomy manager for managing organisation of stored data in association with the one or more computer programs, the taxonomy manager including:

means for generating and storing a reference taxonomy, the reference taxonomy comprising information defining a data organisation;

an adapter for accessing storage associated with a computer program to obtain an application taxonomy, the application taxonomy comprising information defining the organisation of stored data items of the program;

means for comparing the reference taxonomy with the application taxonomy to identify matching and non-matching features of the compared taxonomies; and

means, responsive to a selection of a preferred taxonomy based on a result of the comparison, for storing the preferred taxonomy as a replacement of at least one of the reference taxonomy and the application taxonomy .

EVIDENCE APPENDIX

There is no evidence to be presented.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.